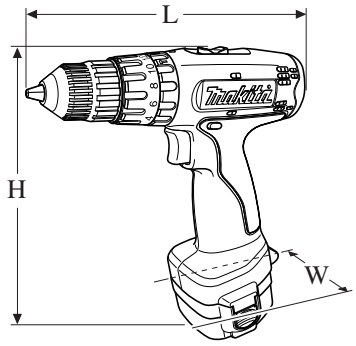
TECHNICAL INFORMATION

PRODUCT

Models No. ► 8270D

Description ► Cordless Percussion Driver Drill



Dimensions: mm (")	
Length (L)	214 (8-3/8)
Width (W)	94 (3-11/16)
Height (H)	239 (9-3/8)

CONCEPT AND MAIN APPLICATIONS

Models 8270D has been developed by adding percussion mechanism to Model 6270D for a compact, yet powerful and durable 12V cordless percussion driver drill. Its brief advantages are;
*Compact design with an overall length of only 214mm (8-3/8")
*Very versatile with 3 work modes; Percussion drill, Drill, Screwdriver
*All metal gear construction for extra-high transmission durability
This new product is available in the variations listed below.

Model No.	Battery		Charger	Rechargeable flashlight
	Type	Q'ty		
8270DZ	without		without	without
8270DWAE	Ni-Cd Battery 1222 (2.0Ah)	2	DC1414	without
8270DWALE		2		ML120
8270DWDE	Ni-MH Battery 1234 (2.6Ah)	2		without
8270DWE	Ni-Cd Battery 1220 (1.3Ah)	2		without
8270DWLE		2		ML120
8270DWPE	Ni-Cd Battery PA12 (1.3Ah)	2		without
8270DWPLE		2		ML120
8270DWPE3		3		without

► Specification

Battery	Voltage: (V)	12		
	Cell	Ni-Cd	Ni-Cd	Ni-MH
	Capacity: (Ah)	1.3 Ah (Battery 1220, PA12)	2.0 Ah (Battery 1222)	2.6 Ah (Battery 1234)
No load speed: min^{-1}=rpm	High speed	0 - 1,200		
	Low speed	0 - 350		
Impact per minute: min^{-1}=bpm	High speed	0 - 18,000		
	Low speed	0 - 5,250		
Chuck capacity: mm (")		0.8 - 10 (1/32 - 3/8)		
Capacities	Steel: mm (")	10 (3/8)		
	Wood: mm (")	25 (1)		
	Masonry: mm (")	8 (5/16)		
Max. fastening torque: N.m	Hard joint	30		
	Soft joint	18		
Torque adjustment		16 stages plus drill mode		
Net weight: kg (lbs) [includes battery]		1.6 (3.5)		

► Standard equipment

Model No.	8270DZ	8270DWAE, 8270DWALE, 8270DWDE, 8270DWE, 8270DWLE, 8270DWPE, 8270DWPLE	8270DWPE3
(+) (-) Bit 2-65	1	1	1
Battery cover	No	2	3
Plastic carrying case	No	Yes	Yes

Note: The standard equipment listed above may differ from country to country.

► Optional accessories

Battery 1220	Battery 1235	Charger DC1414	Automotive charger DC1422	Assorted drill bits for wood
Battery PA12	Battery 1235A	Charger DC1804	Automotive charger DC1822	Assorted drill bits for steel
Battery 1222	Battery 1235F	Charger DC1439		Assorted driver bits
Battery 1234				Assorted TCT drill bits

Repair

[1] Removal/Installation of Drill Chuck

When replacing Gear assembly, remove drill chuck beforehand as described below.
(It is not necessary to remove Drill chuck when disassembling Housing only.)

REMOVAL

1) After fully opening Chuck jaws, remove the chuck screw (M6x22 (-) Flat head screw) by turning it clockwise. If it is difficult to remove, use a Makita Impact wrench.
2) Slide Speed change lever to the position of "Low", and turn Change ring to "Drill mode". And then secure one end of a hex wrench with Chuck jaws. Hold the machine firmly, and then remove Drill chuck by hitting the other end of the hex wrench using plastic hammer to turn Drill chuck counterclockwise. (**Fig. 1**)

INSTALLATION

1) Secure one end of a hex wrench with Chuck jaws, and the other with vise. Shift Speed change lever to "Low", and set the machine in the mode of drilling in forward rotation. Hold the grip of the machine firmly so that your hand cannot be pulled away by reaction torque. And then fasten Spindle to Drill chuck by pulling the trigger of Switch until Spindle is locked. (**Fig. 2**)
   Note: Release the trigger of Switch just after Spindle is locked. Do not keep on pulling the trigger for longer than one second.
2) Fasten Drill chuck to Spindle with the chuck screw (M6x22 (-) Flat head screw) by turning it counterclockwise.

Fig. 1

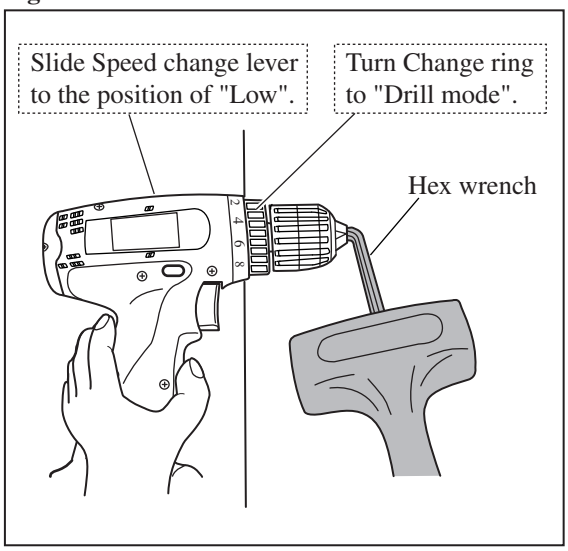
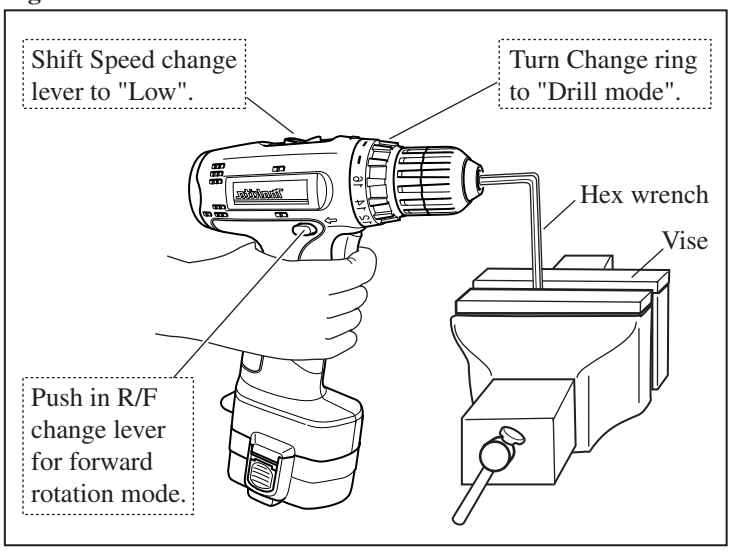


Fig. 2


Shift Speed change lever to "Low".
Turn Change ring to "Drill mode".
Hex wrench
Vise
Push in R/F change lever for forward rotation mode.

[2] Removal/Installation of Motor from/on Gear Assembly

REMOVAL

1) Pull Motor out of Gear assembly while turning it in the counterclockwise direction when viewed from the terminal end of Motor. (**Fig. 3**)
2) Remove Motor bracket from Motor by removing two Pan head screws. Now Motor can be replaced (**Fig. 4**)

Fig. 3

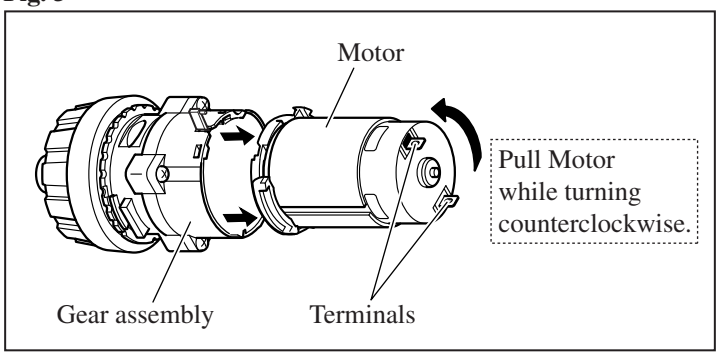
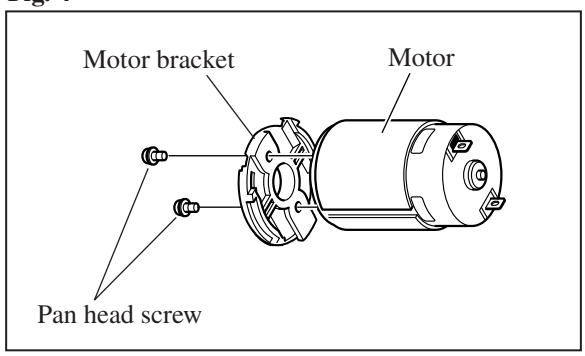


Fig. 4



Repair

[2] Removal/Installation of Motor from/on Gear Assembly (cont.)

INSTALLATION

1) Place Motor bracket as illustrated in **Fig. 5**, and fasten it to Motor with two Pan head screws.
2) Aligning the protrusions on Motor bracket with the grooves in Gear assembly, assemble Motor to Gear assembly. (**Fig. 6**)
3) Assemble Motor to Gear assembly while turning it in the clockwise direction when viewed from the terminal end of Motor. (**Fig. 7**)

Fig. 5

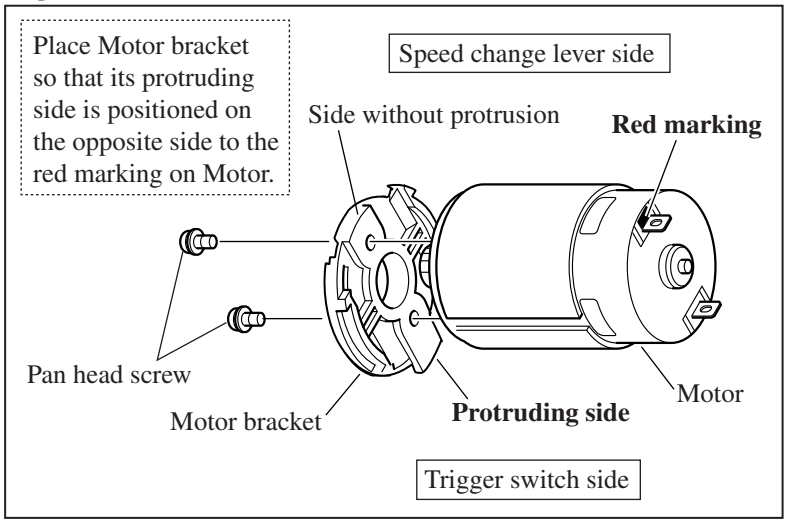

Place Motor bracket so that its protruding side is positioned on the opposite side to the red marking on Motor.
Speed change lever side
Side without protrusion
Red marking
Pan head screw
Motor bracket
Protruding side
Motor
Trigger switch side

Fig. 6

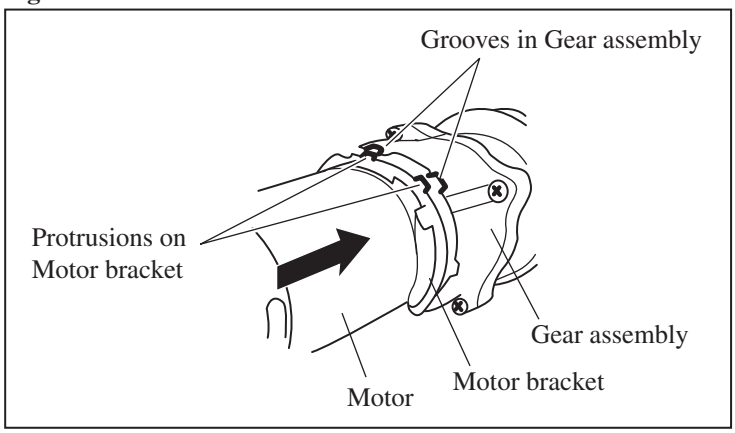
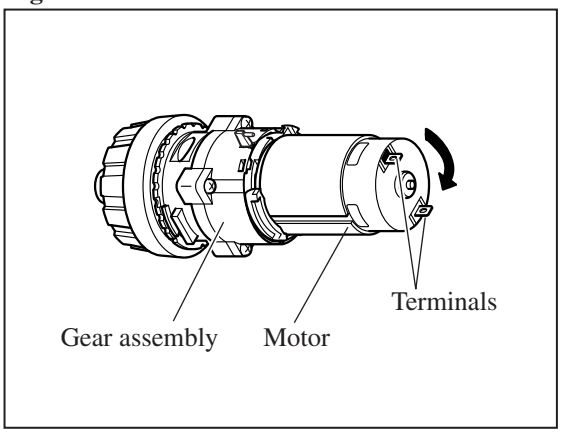


Fig. 7



[3] Installing Speed change Lever

1) Make sure that two Compression springs are set in place on Speed change lever as illustrated in **Fig. 8**.
2) Install Speed change lever onto the protrusion on Gear assembly as illustrated in **Fig. 9**.
   After installation, slide Speed change lever to either side. (**Fig. 10**)

Fig. 8

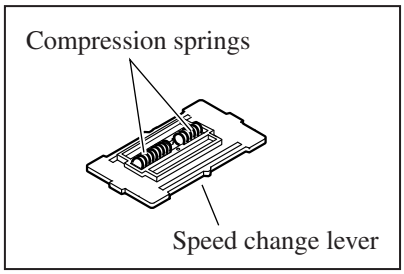


Fig. 9

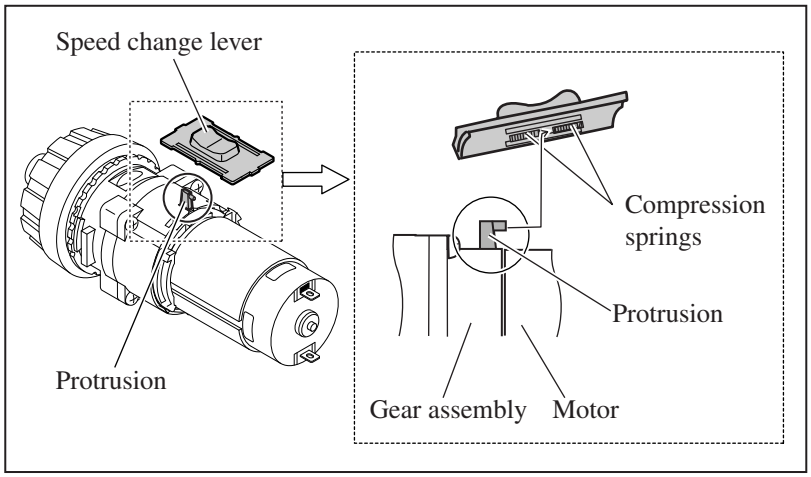
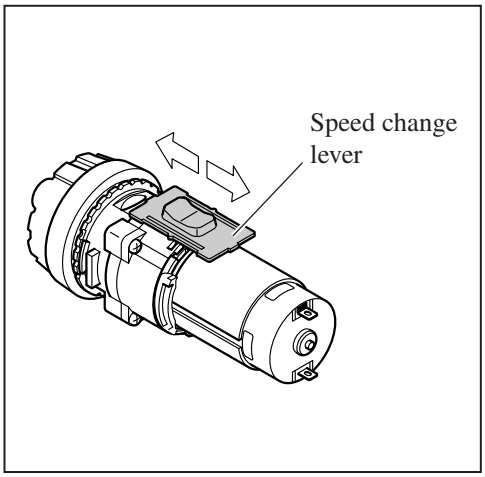


Fig. 10

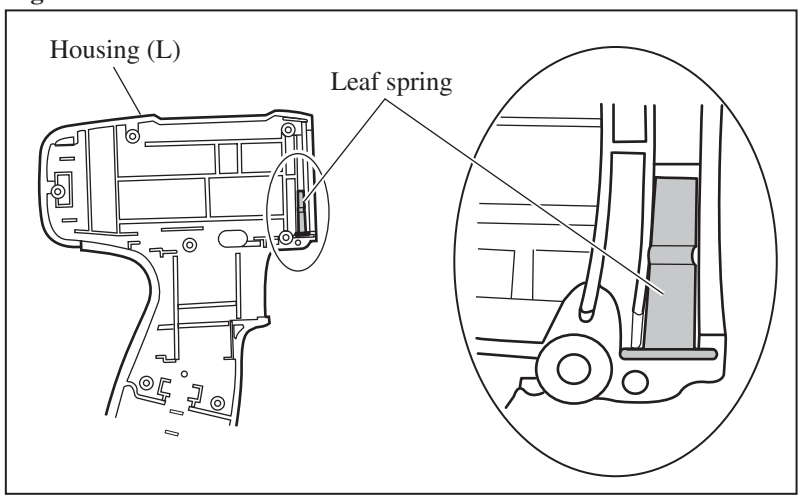


Repair

[4] Installing Leaf spring Onto Housing (L)

Before installation of inner electrical parts, remember to set Leaf spring in place on housing (L) as illustrated in **Fig. 11**.

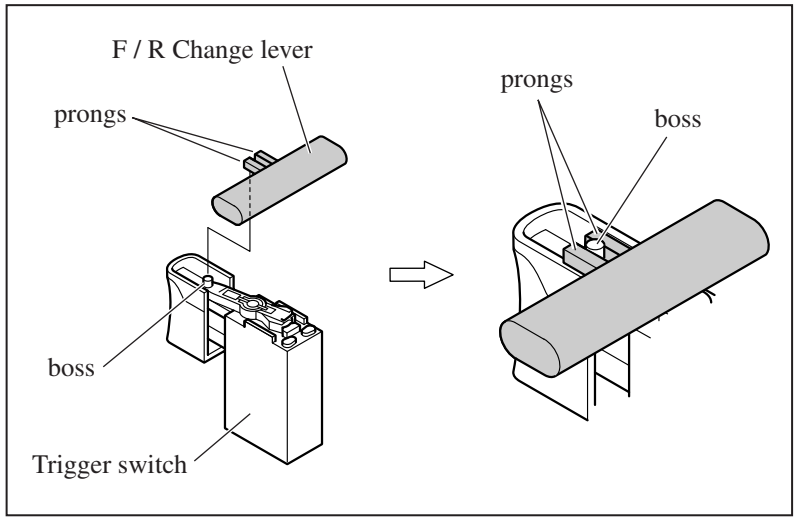
Fig. 11



[5] Installing F/R Change Lever

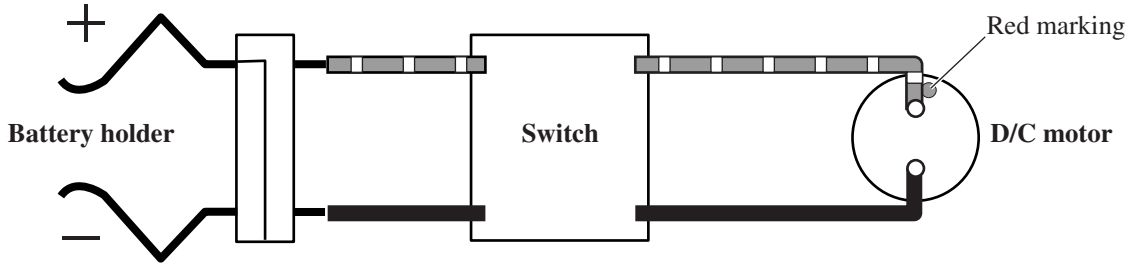
Install F/R change lever onto Trigger switch by placing the boss on Trigger switch between the prongs on F/R change lever as illustrated in **Fig. 12**.

Fig. 12



Circuit diagram

Color index of lead wires' sheath	
Black	
Red	



Wiring diagram

[1] Connecting Lead Wires with Motor

Connect the lead wires with the terminals on Motor so that they are placed on the side of Housing (L). (**Fig. 13**)

[2] Wiring in Housing

Route lead wires as illustrated in **Fig. 14**.

[3] Connecting Lead Wires with Battery Holder

Connect lead wires with the terminals on Battery holder as illustrated in **Fig. 15**.

Fig. 13

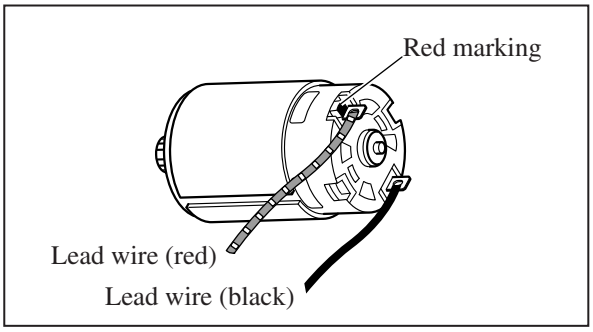


Fig. 14

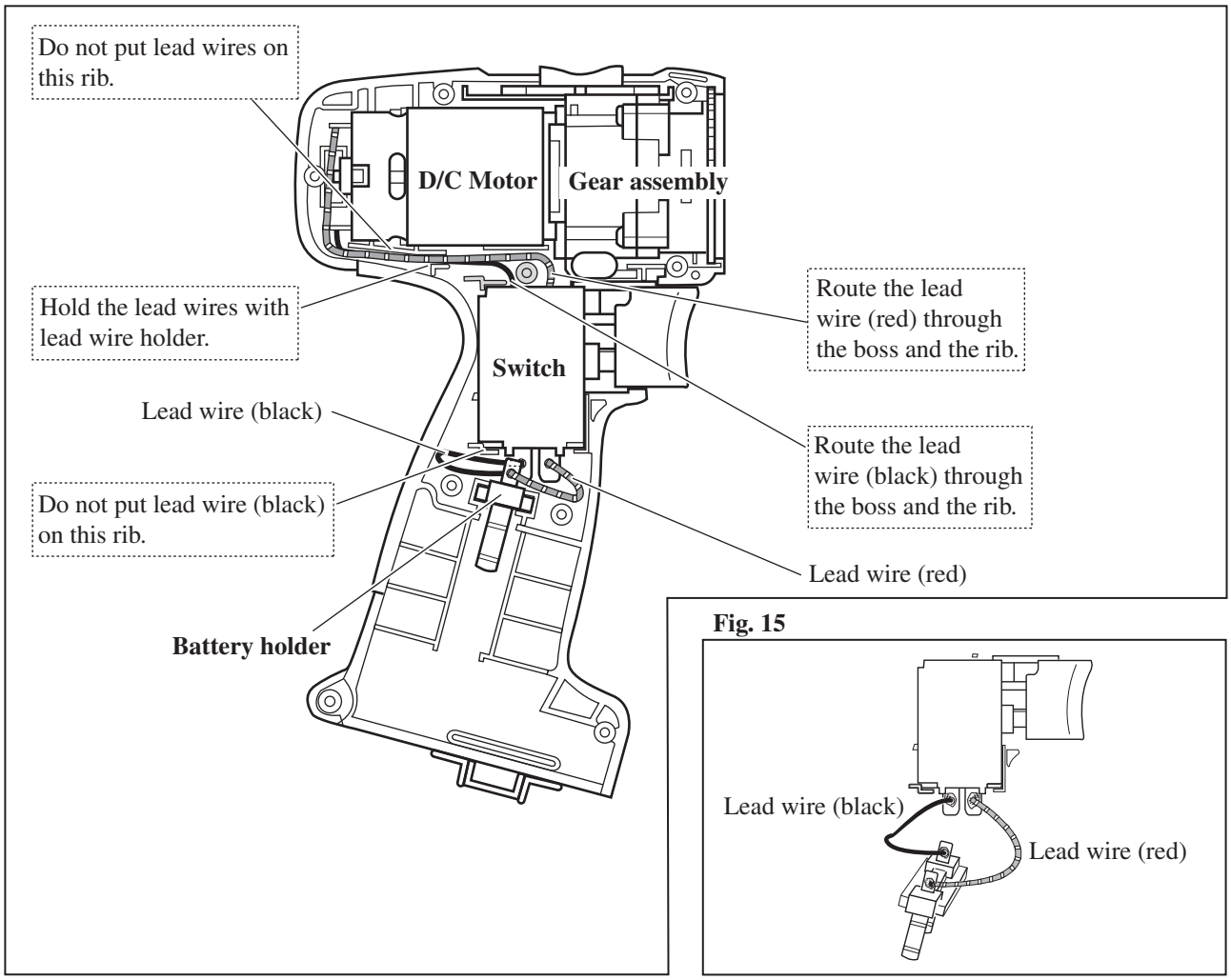

Do not put lead wires on this rib.
D/C Motor
Gear assembly
Hold the lead wires with lead wire holder.
Switch
Route the lead wire (red) through the boss and the rib.
Lead wire (black)
Route the lead wire (black) through the boss and the rib.
Do not put lead wire (black) on this rib.
Lead wire (red)
Battery holder

Fig. 15